YORK®
Heating and Air Conditioning

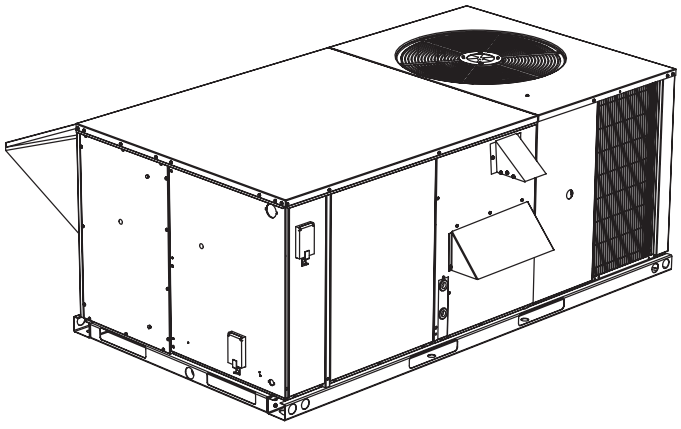
TECHNICAL GUIDE

SINGLE PACKAGE GAS/ELECTRIC UNITS AND SINGLE PACKAGE AIR CONDITIONERS

DM072

6 NOMINAL TONS

9.0 EER



DESCRIPTION

YORK Sunline 2000™ units are convertible single package air conditioners. The units were designed for light commercial and commercial applications. They can easily be installed on a roof curb, slab, roof jack or frame.

All units include:

- Powder Paint finish that meets ASTM-B-117 1000 hour salt spray standards
- Permanently lubricated motors
- Direct Drive or Belt Drive Blower with high static drive option
- Bottom or side air discharge configuration capability (field convertible)
- Manufactured under the quality standards of ISO9001
- Simplicity® Control Board
- Copper tube/aluminum fin coils
- Easy access to all components
- Rigging holes in base rails for lifting
- Fork lift slots on three sides
- Single point power connection
- Complete factory package - tested, charged and wired
- CSA agency listing on all units

WARRANTY

- Factory Limited Parts Warranty
- One-year parts warranty
- A Five-year parts warranty on the compressor and electric heat elements.
- Ten-year parts warranty on the gas-fired heat exchangers.

C US

CERTIFIED

DESIGN CERTIFIED

ARI PERFORMANCE CERTIFIED
ARI Standard 210/240
Unitary Air Conditioners

FOR DISTRIBUTION USE ONLY - NOT TO BE USED AT POINT OF RETAIL SALE

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PRODUCT NOMENCLATURE

6 Ton Sunline Model Number Nomenclature

D	M	072	N04	A	2	A	AA	1	0	1	2	4	A

Product Category

D = A/C, Single Pkg., R-22

Product Identifier

M = 9.0 EER A/C

Nominal Cooling Capacity

072 = 6.0 Ton

Heat Type and Nominal Heat Capacity

C00 = Cooling Only. Suitable for Field Installed Electric Heat

Gas Heat Options

N08 = 80 MBH Output Aluminized Steel, 1 Stage (072)
N10 = 100 MBH Output Aluminized Steel, 1 Stage (072)
D06 = 60 MBH Output Aluminized Steel, 2 Stage (072)
D10 = 100 MBH Output Aluminized Steel, 2 Stage (072)
S08 = 80 MBH Output Stainless Steel, 1 Stage (072)
S10 = 100 MBH Output Stainless Steel, 1 Stage (072)
T06 = 60 MBH Output Stainless Steel, 2 Stage (072)
T10 = 100 MBH Output Stainless Steel, 2 Stage (072)

Electric Heat Options

E05 = 5 KW
E07 = 7 KW
E10 = 10 KW
E15 = 15 KW
E20 = 20 KW
E30 = 30 KW

Airflow

A = Direct Drive
B = Direct Drive/Economizer
D = Direct Drive/Motorized Damper
N = Belt Drive
P = Belt Drive/Economizer
R = Belt Drive/Motorized Damper
T = Belt Drive High Static
U = Belt Drive High Static/Economizer
V = Belt Drive High Static/Motorized Damper

Voltage

2 = 208/230-3-60
4 = 460-3-60
5 = 575-3-60
7 = 380/415-3-50

Installation Options

A = No Options Installed
B = Option 1
C = Option 2
D = Options 1 & 2
E = Option 3
F = Option 4
G = Options 1 & 3
H = Options 1 & 4
J = Options 1, 2 & 3
K = Options 1, 2, & 4
L = Options 1,3 & 4
M = Options 1, 2, 3, & 4
N = Options 2 & 3
P = Options 2 & 4
Q = Options 2, 3, & 4
R = Options 3 & 4
S = Option 5
T = Options 1 & 5
U = Options 1, 3, & 5
V = Options 1, 4, & 5
W = Options 1, 3, 4, & 5
X = Options 3 & 5
Y = Options 4 & 5
Z = Options 3, 4 & 5

Options

1 = Disconnect
2 = Non-Pwr'd Conv. Outlet
3 = Smoke Detector S.A.
4 = Smoke Detector R.A.
5 = Pwr'd Conv. Outlet

Product Generation

1 = First Generation
2 = Second Generation
3 = Third Generation

Additional Options

Standard Cabinet	Hinged Filter Door & Toolless Access Cabinet
AA = None AB = Phase Monitor AC = Coil Guard AD = Dirty Filter Switch AE = Phase Monitor & Coil Guard AF = Phase Monitor & Dirty Filter Switch AG = Coil Guard & Dirty Filter Switch AH = Phase Monitor, Coil Guard & Dirty Filter Switch AS = Bottom Drain Connection RC = Coil Guard & American Flag TA = Technicoat Condenser Coil TJ = Technicoat Evaporator Coil TS = Technicoat Evaporator and Condenser Coil	**BA = Hinged Filter Door & Toolless Access Panels** BA = Hinged Filter Door & Toolless Access Panels BB = Phase Monitor, Hinged Filter Door & Toolless Access Panels BC = Coil Guard, Hinged Filter Door & Toolless Access Panels BD = Dirty Filter Switch, Hinged Filter Door & Toolless Access Panels BE = Phase Monitor & Coil Guard, Hinged Filter Door & Toolless Access Panels BF = Phase Monitor & Dirty Filter Switch, Hinged Filter Door & Toolless Access Panels BG = Coil Guard & Dirty Filter Switch, Hinged Filter Door & Toolless Access Panels BH = Phase Monitor, Coil Guard & Dirty Filter Switch, Hinged Filter Door & Toolless Access Panels

ZZ = If desired option combination is not listed above, ZZ will be assigned and configuration options will be located in digits 15-18.

Configuration Options (not required for all units)
These four digits will not be assigned until a quote is requested, or an order placed.

- SS Drain Pan
- CPC Controller, DFS, APS
- Johnson Controller UNT 1126 (N2 protocol), DFS, APS
- Honeywell Controller, DFS, APS
- Novar Controller, DFS, APS
- Simplicity IntelliComfort Controller
- Simplicity IntelliComfort Controller w/ModLinc
- York Commercial Comfort System (YCCS) Rtu Controller
- 2" Pleated filters
- BAS Ready Economizer (2-10 V. D. C. Actuator without a Controller)
- Any Combination of Additional Options that Don't Have an Option Code Pre-assigned

Product Style

A = Style A

FEATURES

All models are available with a wide variety of factory-mounted options such as stainless steel heat exchangers, electric heaters, phase monitor, convenience outlet, dirty filter switch, disconnect switch, smoke detectors, and coil guard to make them suitable for almost every application.

All units are self-contained and assembled on full perimeter base rails with forklift holes on three sides and holes for overhead rigging. Every unit is completely piped, wired, charged and tested at the factory to simplify the field installation and to provide years of dependable operation.

All models (including those with an economizer) are suitable for either bottom or horizontal duct connections. For bottom duct, remove the sheet metal panels from the supply and return air openings through the base of the unit. For horizontal duct, remove the supply and return air panels on the rear of the unit.

All models are available with these “factory mounted” outdoor air damper options:

- Single enthalpy economizer
- Motorized outdoor air damper

Supply air blowers are equipped with either a direct drive or a belt drive that can be adjusted to meet the exact requirements of the job.

All compressors are equipped with internal pressure relief. Every refrigerant circuit includes a liquid line filter-drier, a high pressure switch and a suction line with a freezestat and low pressure/loss of charge switch to protect all system components.

- **Simplicity® Controls - Simplicity®** control boards have standardized a number of features previously available only as options or by utilizing additional controls.
    - **Low Ambient** - An integrated low-ambient control allows all units to operate in the cooling mode down to 0ºF outdoor ambient without additional assistance. Optionally, the control board can be programmed to lockout the compressors when the outdoor air temperature is low or when free cooling is available.

⚠ CAUTION

The *Simplicity*® control board used in this product will effectively operate the cooling system down to 0°F when this product is applied in a comfort cooling application for people. An economizer is typically included in this type of application. When applying this product for process cooling applications (computer rooms, switchgear, etc.), please reference applications bulletin AE-011-07 or call the applications department for Unitary Products @ 1-877-UPG-SERV for guidance. Additional accessories may be needed for stable operation at temperatures below 30° F.

- **Anti-Short Cycle Protection** - To aid compressor life, an anti-short cycle delay is incorporated into the standard controls. Compressor reliability is further ensured by programmable minimum run times. For testing, the anti short cycle delay can be temporarily overridden with the push of a button.
- **Fan Delays** - Fan on and fan off delays are fully programmable and are independent of one another. All units are programmed with default values based upon their configuration of cooling and heat.
- **Safety Monitoring** - The control board monitors the high and low-pressure switches, the freezestats, the gas valve, if applicable, and the temperature limit switch on gas heat units. The unit control board will alarm on ignition failures, compressor lockouts and repeated limit switch trips.
- **Nuisance Trip Protection**- To prevent nuisance trouble calls, the control board uses a “three strikes, you’re out” philosophy. The high and low-pressure switches and the freezestats must trip three times within two hours before the unit control board will lock out the compressor.
- **On Board Diagnostics** - Each alarm will energize a trouble light on the thermostat, if so equipped, and flash an alarm code on the control board LED. Each high and low-pressure switch alarm as well as each freezestat alarm has its own flash code. The control board saves the five most recent alarms in memory, and these alarms can be reviewed at any time. Alarms and programmed values are retained through the loss of power.

All units have long lasting powder paint cabinets with 1000 hour salt spray test approval under ASTM-B117 procedures.

All models are CSA listed.

- **Warranty** - All models include a one-year limited parts warranty on the complete unit. Compressors and electric heater elements carry a five-year warranty. Gas heat exchangers carry a 10-year parts warranty.
- **Gas Heat Operation** - All single phase models with gas heat have minimum annual fuel utilization efficiency (AFUE) of 80%. All three phase models with gas heat have minimum steady state efficiency of 80%. Each section includes a durable heat exchanger with aluminized steel or optional stainless steel tubes, a redundant gas valve, spark ignition, power venting, an ignition module for 100% shut-off and all of the safety controls required to meet the latest ANSI standards.

  The gas supply piping can be routed into the heating compartment through a hole in the base pan of the unit or through a knockout in the piping panel on the front of the unit.
- **Electric Heat Operation** - All electric heat models are wired for a single power source and include a bank of

nickel chromium elements mounted at the discharge of the supply air blower to provide a high velocity and uniform distribution of air across the heating elements. Every element is fully protected against excessive temperature by thermal limit switches.

The power supply wiring can be routed into the control box through a threaded pipe connection (field supplied) in the base pan of the unit or through a knockout in the wiring panel on the side of the unit.

- **BAS Controls** - York's Sunline™ series units offer factory mounted BAS controls such as Simplicity® INTELLI-Comfort™, Novar, Honeywell, Johnson, York Commercial Comfort System (YCCS) and CPC.

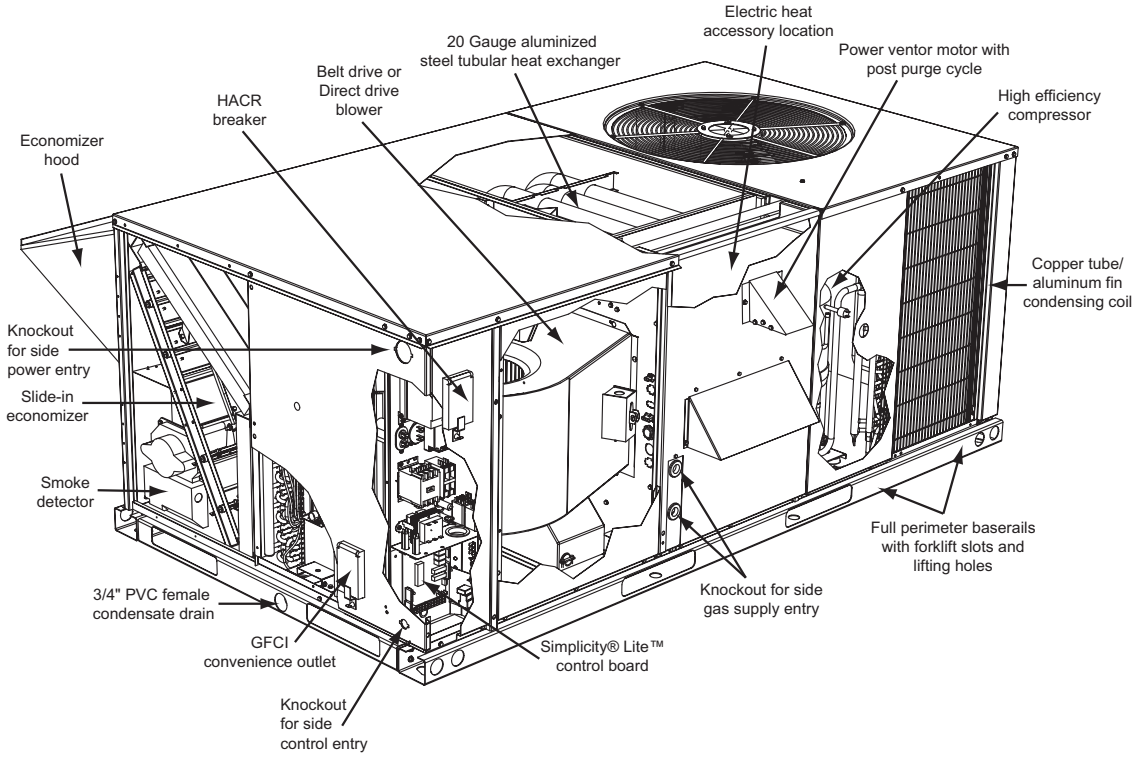

Electric heat accessory location
20 Gauge aluminized steel tubular heat exchanger
Power ventor motor with post purge cycle
Belt drive or Direct drive blower
HACR breaker
High efficiency compressor
Economizer hood
Copper tube/ aluminum fin condensing coil
Knockout for side power entry
Slide-in economizer
Smoke detector
Full perimeter baserails with forklift slots and lifting holes
3/4" PVC female condensate drain
Knockout for side gas supply entry
GFCI convenience outlet
Simplicity® Lite™ control board
Knockout for side control entry

FIGURE 1 - UNIT CUTAWAY GAS/ELECTRIC

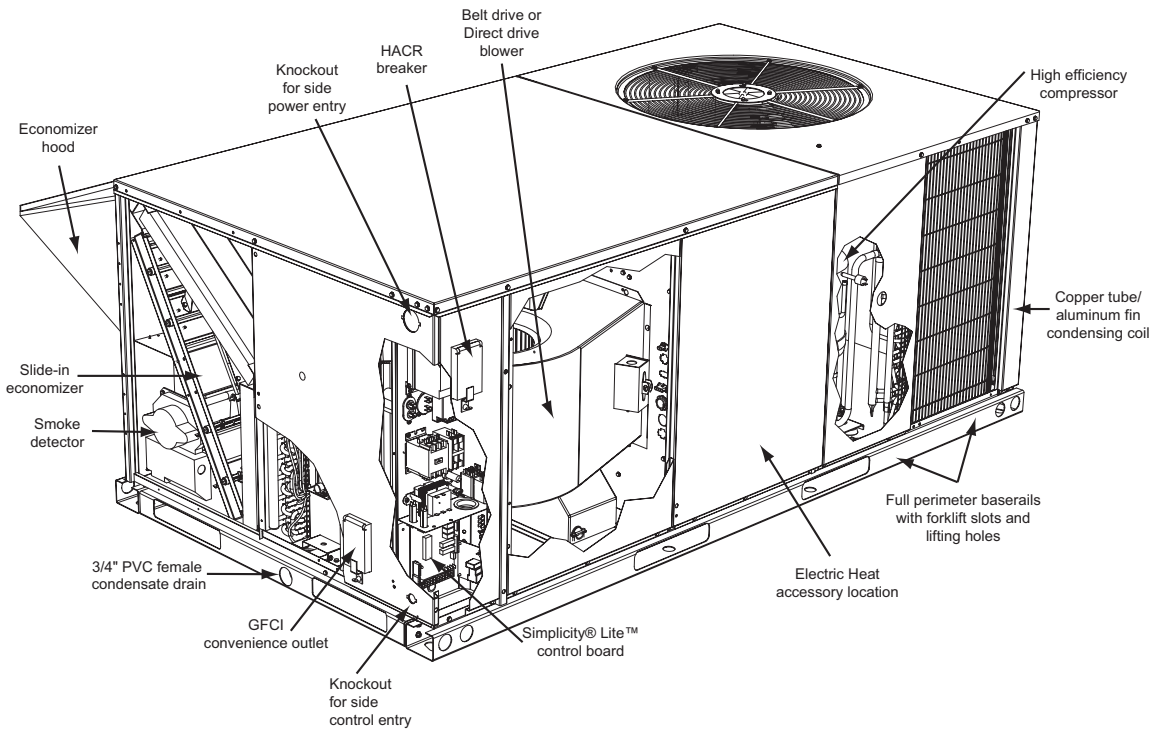


FIGURE 2 - UNIT CUTAWAY ELECTRIC/ELECTRIC

FACTORY-INSTALLED OPTIONS

- **SINGLE INPUT ELECTRONIC ENTHALPY ECONOMIZERS** - Includes a slide-in / plug-in damper assembly with fully modulating spring-return motor actuator capable of introducing up to 100% outdoor air with nominal 1% leakage type dampers.

  The enthalpy system contains one sensor that monitors the outdoor air and determines when the air is cool enough and dry enough to provide free cooling.

  The rainhood is painted to match the basic unit and must be field-assembled before installing.

- **MOTORIZED OUTDOOR AIR INTAKE DAMPER** - Includes a slide-in / plug-in damper assembly with a 2-position, spring return motor actuator which opens to a pre-set position whenever the supply air blower is operating and will drive fully closed when the blower unit shuts down.

  The rain hood is painted to match the basic unit and must be field assembled before installing.

- **PHENOLIC COATED EVAPORATOR AND CONDENSER COILS** - Special coating process that utilizes Technicoat 10-1™ processes. Coating is applied by total immersion of the complete coil for maximum protection.

- **ELECTRIC HEATERS** - Wired for single point power supply. These nickel chromium heater elements are provided with limit and automatic reset capability to prevent operation at excessive temperatures.

- **FILTER OPTIONS** - Standard units are shipped with 1" throw-away filters installed. 2" pleated filters are offered as a factory installed option.

- **CONVENIENCE OUTLET -** This 110 volt outlet can be "powered" by the unit with a stepdown transformer or the unit may be ordered with a "non-powered" convenience outlet that can be wired in the field.

- **DISCONNECT SWITCH** - For gas heat units and cooling units with electric heat, a HACR breaker sized to the unit is provided. For cooling only units, a switch sized to the largest electric heat available for the particular unit is provided. Factory installed option only.

- **BAS - Building Automation System Controls Simplicity® INTELLI-Comfort™ CONTROL -** The York® Simplicity® INTELLI-Comfort™ control is factory installed. It includes a supply air sensor, a return air sensor, and an outside air sensor. There are provisions for a field installed dirty filter indicator switch, an air-proving switch, an Outside Air Humidity sensor, a Return Air Humidity sensor, an Inside IAQ sensor, and an Outside Air IAQ sensor. Construction mode operation, 365-day real time clock with 7 day programming plus holiday scheduling is built-in. Two different modes of demand ventilation are achieved through the INTELLI-Comfort™using CO_2 sensors. It uses an inside CO_2 sensor to perform Demand Ventilation. It can also use an Outside CO_2 sensor to perform Differential Demand Ventilation. It uses a Patented Comfort Ventilation algorithm to provide comfortable ventilation air temperature. The patented economizer-loading algorithm will protect the equipment when harsh operating conditions exist. Humidity in the occupied space or return

duct can be monitored and controlled via humidity sensors and the on-board connection for hot gas re-heat system. It uses the INTELLI-Start™ algorithm to maximize energy savings by recovering the building from the Unoccupied Setpoints to the Occupied Setpoints just in time for the Occupied Time Period to begin. The Simplicity® INTELLI-Comfort™ balances space temperature, ventilation air temperature, CO_2 and humidity for ultimate comfort.

- **Simplicity® INTELLI-Comfort™ with MOD LINK CONTROL -** The York® Simplicity® INTELLI-Comfort™ with Mod Link control is factory installed. It includes all the features of the INTELLI-Comfort™ control with an additional control to translate communications from MODBUS to the BACnet MSTP protocol.
- **Novar® BAS CONTROL -** The Novar® building automation system controller is factory installed. Includes supply air sensor, return air sensor, dirty filter indicator switch, and air proving switch.
- **JOHNSON CONTROLS BAS CONTROL -** The Johnson Control YK-UNT-1126 building automation system controller is factory installed. Includes supply air sensor, return air sensor, dirty filter indicator switch, and air proving switch.
- **CPC BAS CONTROL -** The Computer Process Controls Model 810-3060 ARTC Advanced Rooftop building automation system controller is factory installed. Includes supply air sensor, return air sensor, dirty filter indicator switch and air proving switch.
- **HONEYWELL BAS CONTROL -** The Honeywell W7750C building automation system controller is factory installed. Includes air supply sensor, return air sensor, dirty filter indicator switch, and air proving switch.
- **YORK COMMERCIAL COMFORT SYSTEM (YCCS)** - Provides rooftop system integration for YCCS single zone and change-over bypass systems.
- **SMOKE DETECTORS** - (supply air & return air) The smoke detectors stop operation of the unit by interrupting power to the control board if smoke is detected within the air compartment.

⚠WARNING

Factory installed Smoke Detectors in the return air, may be subjected to freezing temperatures during "off" times due to outside air infiltration. These smoke detectors have an operational limit of 32°F to 131°F. Smoke detectors installed in areas that could be outside those limitations will have to be moved to prevent having false alarms.

- **COIL GUARD** - Customers can purchase a coil guard kit to protect the condenser coil from damage. This is not a hail guard kit.
- **STAINLESS STEEL HEAT EXCHANGER** - For applications in corrosive environments, this option provides a full stainless steel heat exchanger assembly.
- **STAINLESS STEEL DRAIN PAN -** An optional rust-proof stainless steel drain pan is available to provide years of trouble-free operation in corrosive environments.
- **BOTTOM DRAIN CONNECTION -** An optional bottom drain connection is available for inside the curb connections for applications in cold environments to reduce freezing drain lines.
- **PHASE MONITORS** - Designed to prevent unit damage. The phase monitor will shut the unit down in an out-of-phase condition.
- **DIRTY FILTER SWITCH** - This kit includes a differential pressure switch that energizes the fault light on the unit thermostat, indicating that there is an abnormally high pressure drop across the filters. Factory installed option or field installed accessory.
- **HINGED FILTER DOOR/"TOOLLESS" BLOWER AND ACCESS PANELS** (not hinged) - This option allows for easy access and maintenance.

  NOTE: Knobs are shipped inside the unit to prevent shipping damage. These must be field installed for tool-less operation.

- **HIGH STATIC DRIVE OPTION -** May include a belt, blower pulley, motor pulley or a motor change to enhance blower performance.

FIELD-INSTALLED ACCESSORIES

- **SINGLE INPUT ELECTRONIC ENTHALPY ECONOMIZERS** - Includes a slide-in / plug-in damper assembly with fully modulating spring-return motor actuator capable of introducing up to 100% outdoor air with nominal 1% leakage type dampers.

  The enthalpy system contains one sensor that monitors the outdoor air and determines when the air is cool enough and dry enough to provide free cooling.

  The rainhood is painted to match the basic unit and must be field-assembled before installing.

- **MOTORIZED OUTDOOR AIR INTAKE DAMPER** - Includes a slide-in / plug-in damper assembly with a 2-position, spring return motor actuator which opens to some pre-set position whenever the supply air blower is operating and will drive fully closed when the blower unit shuts down.

  The rain hood is painted to match the basic unit and must be field assembled before installing.

- **ELECTRIC HEATERS** wired for single point power supply. These nickel chromium heater elements are provided with limit and automatic reset capability to prevent operation at excessive temperatures.
- **ROOF CURBS** - Eight and fourteen-inch high roof curbs provide a water-tight seal between the unit and the finished roof. These full perimeter curbs meet the requirements of the National Roofing Contractors Association (NRCA) and are shipped knocked-down for field assembly.

  Roof curbs are designed to fit inside the base rails of the unit and include both a wood nailing strip and duct hanger supports.
- **HIGH ALTITUDE NATURAL GAS** - Burner orifices and pilot orifices are provided for proper furnace operation at altitudes up to 6,000 feet.
- **PROPANE** - Burner orifices, pilot orifices and gas valve parts are provided to convert a natural gas furnace to propane.
- **HIGH ALTITUDE PROPANE** - Burner orifices and pilot orifices are provided for proper furnace operation at altitudes up to 6,000 feet. This accessory supplements the basic propane conversion kit.
- **LOW NOX KIT**- Required to reduce the emission of nitrogen oxides below 40 nanograms per joule.
- **POWER EXHAUST** - Our single input economizer options are available with power exhaust. Whenever the outdoor air intake dampers are opened for free cooling, the exhaust fan will be energized to prevent the conditioned space from being over-pressurized during economizer operation.

  The power exhaust option can only be used on bottom duct configurations.
- **BAROMETRIC RELIEF DAMPER** - This damper accessory can be used to relieve internal building air pressure on units with an economizer without power exhaust. This accessory includes a rain hood, a bird screen and a fully assembled damper. With bottom duct connections, the damper should be mounted over the opening in the return air panel. With horizontal ductwork, the accessory should be mounted on the return air duct.
- **ENTHALPY ACCESSORY CONTROL KIT** - This kit contains the required components to convert a single enthalpy economizer to dual enthalpy.
- **BURGLAR BARS** - Mount in the supply and return openings to prevent entry into the duct work.
- **FLUE EXHAUST EXTENSION KIT** - In locations with wind or weather conditions which may interfere with proper exhausting of furnace combustion products, this kit can be installed to prevent the flue exhaust from entering nearby fresh air intakes.
- **CO_2 SENSOR** - Senses CO_2 levels and automatically overrides the economizer when levels rise above the present limits.
- **COIL GUARD** - Customers can purchase a coil guard kit to protect the condenser coil from damage. This is not a hail guard kit.
- **HAIL GUARD** -Hail Guard Kit is available to protect coils from damage. This is a sloped hood that fits above the outdoor coil.
- **GAS PIPING KIT** - This kit supplies all necessary fittings and shut off valve.

TABLE 1: SOUND POWER RATING[1]

UNIT SIZE	CFM	ESP	BLOWER		SOUND POWER (db 10^{-12} Watts)									
					Octave Band Centerline Frequency (Hz)								SWL dB(A)	dB(A) @ 10Ft.[2]
		IWG	SPEED	KW	63	125	250	500	1,000	2,000	4,000	8,000		
072	2,200	0.3	HIGH	1.35	87	87	77	70	72	65	60	55	77	44

1. These values have been accessed using a model of sound propagation from a point source into the hemispheric\free field. The dBA values provided are to be used for reference only. Calculation of dBA values cover matters of system design and the fan manufacture has no way of knowing the details of each system. This constitutes and expectation to any specification or guarantee requiring a dBA value or sound data in any other form than sound power level ratings.
2. At a distance of 10 feet from the blower.

TABLE 2: CAPACITY RATINGS - (ARI 210/240)[1]

MODEL	MBH	EER[2]
DM072	72.0	9.0

1. 80/67°F Indoor and 95°F outdoor.
2. EER = Energy Efficiency Ratio at full load - the cooling capacity in Btu's per hour (Btuh) divided by the power input in watts, expressed in Btuh per watt (Btuh/watt).

TABLE 3: GAS HEAT RATINGS[1]

MODEL	MBH INPUT	MBH OUTPUT	AFUE (%)	TEMP RISE ºF
DM072N08	100	80	80.5	25 - 55
DM072N10	125	100	80.3	30 - 75

1. All units are single-stage heating.

TABLE 4: 2 STAGE GAS HEAT RATINGS

MODEL[1, 2]	MBH INPUT		MBH OUTPUT		STEADY STATE EFFICIENCY		RISE		MINIMUM HEATING AIRFLOW (CFM)
	1ST STAGE	2ND STAGE	1ST STAGE	2ND STAGE	1ST STAGE	2ND STAGE	MIN.	MAX.	
DM072D06	45	75	35.8	60.8	79.4	81.1	15	45	1230
DM072D10	75	125	60.4	100.6	80.5	80.5	30	75	1230

1. Models are 3Ø only.
2. All 2 Stage Gas Heat, 60% Capacity 1ST Stage, 40% Capacity 2ND Stage.

TABLE 5: DM072 COOLING CAPACITIES (6 TON)

AIR ON EVAPORATOR COIL		TEMPERATURE OF AIR ON CONDENSER COIL																
		85°F								95°F								
		TOTAL CAP.[1] MBH	POWER INPUT[2] kW	SENSIBLE CAPACITY[1] ENTERING DRY BULB, °F							TOTAL CAP.[1] MBH	POWER INPUT[2] kW	SENSIBLE CAPACITY[1] ENTERING DRY BULB, °F						
CFM	WB °F			86	83	80	77	74	71	68			86	83	80	77	74	71	68
2700	72	80	5.7	63	55	47	40	32	-	-	77	6.3	63	55	47	40	32	-	-
	67	80	5.7	76	68	60	53	45	37	30	77	6.3	75	68	60	53	45	37	30
	62	70	5.5	70	70	70	62	55	47	39	71	6.3	71	71	71	63	56	48	40
	57	68	5.6	68	68	68	60	52	45	37	71	6.3	71	71	71	63	56	48	40
2550	72	82	5.7	60	53	46	38	31	-	-	76	6.3	60	53	46	39	31	-	-
	67	82	5.7	73	65	58	51	43	36	29	76	6.3	73	66	58	51	44	36	29
	62	71	5.5	71	71	70	62	55	48	41	70	6.3	70	70	69	62	55	48	40
	57	69	5.6	69	69	69	62	55	47	40	70	6.3	70	70	70	62	55	48	40
2400	72	83	5.7	58	51	44	37	30	-	-	75	6.3	58	51	44	37	30	-	-
	67	83	5.7	70	63	56	49	42	35	28	75	6.3	70	64	57	50	43	36	29
	62	73	5.5	73	73	70	63	56	49	42	69	6.3	69	69	68	61	54	47	40
	57	71	5.6	71	71	71	64	57	50	43	69	6.3	69	69	68	61	54	47	40
2100	72	79	5.7	54	48	41	35	29	-	-	73	6.3	53	47	41	35	29	-	-
	67	79	5.7	65	59	53	47	40	34	28	73	6.3	65	59	52	46	40	34	28
	62	69	5.5	69	69	66	60	54	47	41	67	6.3	67	66	63	57	51	45	38
	57	67	5.6	67	67	67	61	54	48	42	67	6.3	67	66	63	57	51	45	39
1800	72	74	5.6	50	44	39	34	28	-	-	71	6.3	49	43	38	33	27	-	-
	67	74	5.6	60	55	50	44	39	34	28	71	6.3	59	54	48	43	38	32	27
	62	65	5.4	65	65	62	57	51	46	41	65	6.2	65	63	58	53	47	42	37
	57	63	5.5	63	63	63	58	52	47	42	65	6.3	65	63	58	53	47	42	37

AIR ON EVAPORATOR COIL		TEMPERATURE OF AIR ON CONDENSER COIL																
		105°F								115°F								
		TOTAL CAP.[1] MBH	POWER INPUT[2] kW	SENSIBLE CAPACITY[1] ENTERING DRY BULB, °F							TOTAL CAP.[1] MBH	POWER INPUT[2] kW	SENSIBLE CAPACITY[1] ENTERING DRY BULB, °F						
CFM	WB °F			86	83	80	77	74	71	68			86	83	80	77	74	71	68
2700	72	76	7.1	61	53	45	38	30	-	-	75	7.9	59	51	43	36	28	-	-
	67	71	7.1	70	66	58	50	43	35	27	65	7.8	65	64	56	48	41	33	25
	62	64	7.0	64	64	64	56	49	41	34	57	7.8	57	57	57	50	42	34	27
	57	64	7.0	64	64	64	56	49	41	34	57	7.7	57	57	57	50	42	34	27
2550	72	76	7.1	59	51	44	37	29	-	-	76	7.9	57	49	42	35	27	-	-
	67	71	7.1	69	64	56	49	42	34	27	66	7.9	66	61	54	47	40	32	25
	62	64	7.0	64	64	64	56	49	42	35	58	7.8	58	58	58	51	43	36	29
	57	64	7.0	64	64	64	56	49	42	34	58	7.7	58	58	58	50	43	36	29
2400	72	75	7.1	56	49	43	36	29	-	-	76	8.0	55	48	41	34	27	-	-
	67	70	7.1	68	61	54	48	41	34	27	66	7.9	66	59	52	45	38	32	25
	62	64	7.0	64	64	63	56	49	42	35	59	7.8	59	59	59	52	45	38	31
	57	64	7.0	64	64	63	56	49	42	35	59	7.7	59	59	58	51	44	37	30
2100	72	73	7.1	52	45	39	33	27	-	-	73	7.9	50	44	37	31	25	-	-
	67	68	7.1	63	56	50	44	38	32	26	63	7.8	61	54	48	42	36	30	24
	62	61	7.0	61	61	58	52	46	40	34	56	7.7	56	56	54	48	42	35	29
	57	61	7.0	61	61	58	52	46	40	34	56	7.7	56	56	53	47	41	35	29
1800	72	70	7.1	47	41	36	31	25	-	-	69	7.8	45	40	34	29	23	-	-
	67	65	7.0	57	51	46	41	35	30	25	60	7.8	55	49	44	39	33	28	23
	62	59	7.0	59	58	54	48	43	38	32	53	7.7	53	53	49	44	39	33	28
	57	59	6.9	59	58	53	48	43	37	32	53	7.6	53	53	49	44	38	33	27

1. These capacities are gross ratings. For net capacity, determine the kW of the supply air blower motor from the SUPPLY AIR BLOWER PERFORMANCE Table, multiply this value by 3.415 MBH/kW to determine the motor heat, and deduct this heat from the gross capacity of the unit.
2. These ratings include the compressor and the condenser fan motors but not the supply air blower motor. The total condenser fan motor power input is 0.36kW. Refer to the SUPPLY AIR BLOWER PERFORMANCE Table for the kW of the supply air blower motor.

NOMINAL RATING

TABLE 6: SUPPLY AIR BLOWER PERFORMANCE (DM072 BELT DRIVE) - SIDE DUCT APPLICATION

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field Supplied Drive				Standard Drive Option										HIgh Static Drive Option					
1600	811	0.64	895	0.71	974	0.79	1051	0.87	1125	0.96	1196	1.04	1264	1.13	1330	1.23	1393	1.32	1454	1.42
1800	857	0.80	940	0.87	1020	0.95	1097	1.03	1171	1.11	1242	1.20	1310	1.29	1375	1.38	1439	1.48	1500	1.58
2000	907	1.00	990	1.07	1070	1.15	1146	1.23	1220	1.31	1291	1.40	1359	1.49	1425	1.58	1488	1.68	1550	1.77
2200	960	1.24	1043	1.31	1123	1.39	1199	1.47	1273	1.55	1344	1.64	1412	1.73	1478	1.82	1541	1.92	1602	2.01
2400	1015	1.51	1099	1.59	1178	1.66	1255	1.74	1329	1.83	1400	1.92	1468	2.01	1534	2.10	1597	2.19	1658	2.29
2600	1074	1.83	1157	1.90	1237	1.98	1314	2.06	1387	2.14	1458	2.23	1526	2.32	1592	2.41	1656	2.51	1717	2.61
2800	1135	2.18	1218	2.25	1298	2.33	1375	2.41	1448	2.49	1519	2.58	1587	2.67	1653	2.76	1717	2.86	1778	2.96
3000	1198	2.56	1281	2.64	1361	2.71	1438	2.79	1511	2.88	1582	2.96	1651	3.05	1716	3.15	1780	3.24	-	-
																	Field Supplied Drive			

1. Blower performance includes gas heat exchangers and 1" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

TABLE 7: SUPPLY AIR BLOWER PERFORMANCE (DM072 BELT DRIVE) - BOTTOM DUCT APPLICATION

Air Flow (CFM)	Available External Static Pressure - IWG[1]																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field Supplied Drive				Standard Drive Option										HIgh Static Drive Option					
1600	807	0.65	897	0.72	984	0.79	1068	0.87	1148	0.95	1225	1.04	1300	1.13	1371	1.22	1440	1.31	1507	1.40
1800	856	0.80	947	0.87	1034	0.95	1118	1.02	1198	1.11	1275	1.19	1349	1.28	1421	1.37	1490	1.46	1557	1.56
2000	910	0.99	1001	1.06	1088	1.14	1172	1.22	1252	1.30	1329	1.39	1403	1.47	1475	1.56	1544	1.66	1611	1.75
2200	968	1.23	1059	1.30	1146	1.37	1229	1.45	1309	1.53	1387	1.62	1461	1.71	1533	1.80	1602	1.89	1668	1.99
2400	1029	1.50	1119	1.57	1206	1.65	1290	1.72	1370	1.81	1448	1.89	1522	1.98	1593	2.07	1663	2.16	1729	2.26
2600	1093	1.81	1183	1.88	1270	1.95	1354	2.03	1434	2.11	1511	2.20	1586	2.29	1657	2.38	1726	2.47	1793	2.57
2800	1159	2.15	1250	2.22	1337	2.29	1420	2.37	1500	2.46	1578	2.54	1652	2.63	1724	2.72	1793	2.81	-	-
3000	1228	2.52	1318	2.59	1405	2.67	1489	2.75	1569	2.83	1646	2.91	1721	3.00	1792	3.09	-	-	-	-
																	Field Supplied Drive			

1. Blower performance includes gas heat exchangers and 1" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

TABLE 8: SUPPLY AIR BLOWER PERFORMANCE (DM072 DIRECT DRIVE) SIDE DUCT APPLICATION

UNIT TONNAGE	MOTOR SPEED	AVAILABLE EXTERNAL STATIC PRESSURE - IWG[1]																	
		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
		CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS
6[2]	HI	2461	1480	2402	1440	2361	1395	2260	1350	2178	1305	2101	1260	2000	1205	1914	1155	1830	1110

1. Includes allowances for a wet evaporator coil, 1" filters, and the heat exchangers. Refer to STATIC RESISTANCES Table for resistance values.
2. Side Duct application (230/460/575 Volts)

TABLE 9: SUPPLY AIR BLOWER PERFORMANCE (DM072 DIRECT DRIVE) BOTTOM DUCT APPLICATION

UNIT TONNAGE	MOTOR SPEED	AVAILABLE EXTERNAL STATIC PRESSURE - IWG[1]																	
		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
		CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS
6[2]	HI	2375	1429	2318	1391	2279	1348	2181	1304	2102	1261	2028	1217	1931	1164	1848	1116	1767	1073

1. Includes allowances for a wet evaporator coil, 1" filters, and the heat exchangers. Refer to STATIC RESISTANCES Table for resistance values.
2. Bottom Duct application (230/460/575 Volts)

TABLE 10: BELT DRIVE RPM SELECTION

Size (Tons)	HP	Max BHP	Motor Sheave	Blower Sheave	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Fully Closed
072	1.5	1.73	1VL44	AK56	930	995	1060	1130	1195	1260
(6)	3	3.45	1VP56	AK56	1325	1395	1460	1525	1590	1660

TABLE 11: BELT DRIVE BLOWER MOTOR AND DRIVE DATA

MODEL SIZE	MOTOR[1]					Motor Sheave			Blower Sheave			Belt
	HP	RPM	Eff.	SF	Frame	Datum Dia. (in.)	Bore (in.)	Model	Datum Dia. (in.)	Bore (in.)	Model	
6 TON	1-1/2	1725	0.8	1.15	56	2.8 - 3.8	7/8	1VL44	5.2	1	AK56	A36
	3	1725	0.8	1.15	56	4.0 - 5.0	7/8	1VP56	5.2	1	AK56	A38

1. All motors have solid bases and are inherently protected. these motors can be selected to operate into their service factor because they are located in the moving air, upstream of any heating device.

TABLE 12: STATIC RESISTANCES

DESCRIPTION		RESISTANCE, IWG CFM										
		1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000
ECONOMIZER[1,3]		0.07	0.08	0.09	0.11	0.13	0.15	0.17	0.20	0.23	0.26	0.30
ELECTRIC HEATERS[1]	7-15KW	0.04	0.05	0.06	0.07	0.08	0.10	0.12	0.14	0.16	0.19	0.22
	20-30KW	0.06	0.07	0.08	0.09	0.11	0.13	0.15	0.17	0.20	0.23	0.26
COOLING ONLY[2]		0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.23	0.26	0.29	0.32

1. Deduct these resistance values from the available external static pressure shown in SUPPLY AIR BLOWER PERFORMANCE Tables.
2. Add these resistance values to the available static resistance values on SUPPLY AIR BLOWER PERFORMANCE Tables.
3. The pressure through the economizer is greater for 100% outdoor air than for 100% return air. If the resistance of the return air duct system is less than 0.25 IWG, the unit will deliver less CFM during full economizer operation.

Drive Selection

1. Determine side or bottom supply air duct application.
2. Determine desired airflow.
3. Calculate or measure the amount of external static pressure.
4. Using the operating point determined from steps 1, 2 & 3, locate this point on the appropriate supply air blower performance table. (Linear interpolation may be necessary.)
5. Noting the RPM and BHP from step 4, locate the appropriate motor and/or drive on the RPM selection table.
6. Review the BHP compared to the motor options available. Select the appropriate motor and/or drive.
7. Review the RPM range for the motor options available. Select the appropriate drive if multiple drives are available for the chosen motor.
8. Determine turns open to obtain the desired operation point.

Example

1. 2200 CFM
2. 1.6 iwg
3. Using the supply air blower performance table below, the following data point was located: 1478 RPM & 1.82 BHP.
4. Using the RPM selection table below, Size X and Model Y is found.
5. 1.82 BHP exceeds the maximum continuous BHP rating of the 1.5 HP motor. The 2 HP motor is required.
6. 1478 RPM is within the range of the 2 HP drive.
7. Using the 2 HP motor and drive, 2.5 turns open will achieve 1478 RPM.

Example Supply Air Blower Performance

Air Flow (CFM)	Available External Static Pressure - IWG																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field Supplied Drive		Standard Drive Option										HIgh Static Drive Option							
2000	907	1.00	990	1.07	1070	1.15	1146	1.23	1220	1.31	1291	1.40	1359	1.49	1425	1.58	1488	1.68	1550	1.77
2200	960	1.24	1043	1.31	1123	1.39	1199	1.47	1273	1.55	1344	1.64	1412	1.73	1478	1.82	1541	1.92	1602	2.01
2400	1015	1.51	1099	1.59	1178	1.66	1255	1.74	1329	1.83	1400	1.92	1468	2.01	1534	2.10	1597	2.19	1658	2.29
2600	1074	1.83	1157	1.90	1237	1.98	1314	2.06	1387	2.14	1458	2.23	-	-	-	-	-	-	-	-

Table X: RPM Selection

Size (Tons)	Model	HP	Max BHP	Motor Sheave	Blower Sheave	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Fully Closed
X	Y	1.5	1.73	1VL44	AK56	930	995	1060	1130	1195	1260
		2	2.3	1VP56	AK56	1325	1395	1460	1525	1590	1660

Altitude/Temperature Correction Factors

Air Temp.	Altitude (Ft.)										
	0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
40	1.060	1.022	0.986	0.950	0.916	0.882	0.849	0.818	0.788	0.758	0.729
50	1.039	1.002	0.966	0.931	0.898	0.864	0.832	0.802	0.772	0.743	0.715
60	1.019	0.982	0.948	0.913	0.880	0.848	0.816	0.787	0.757	0.729	0.701
70	1.000	0.964	0.930	0.896	0.864	0.832	0.801	0.772	0.743	0.715	0.688
80	0.982	0.947	0.913	0.880	0.848	0.817	0.787	0.758	0.730	0.702	0.676
90	0.964	0.929	0.897	0.864	0.833	0.802	0.772	0.744	0.716	0.689	0.663
100	0.946	0.912	0.880	0.848	0.817	0.787	0.758	0.730	0.703	0.676	0.651

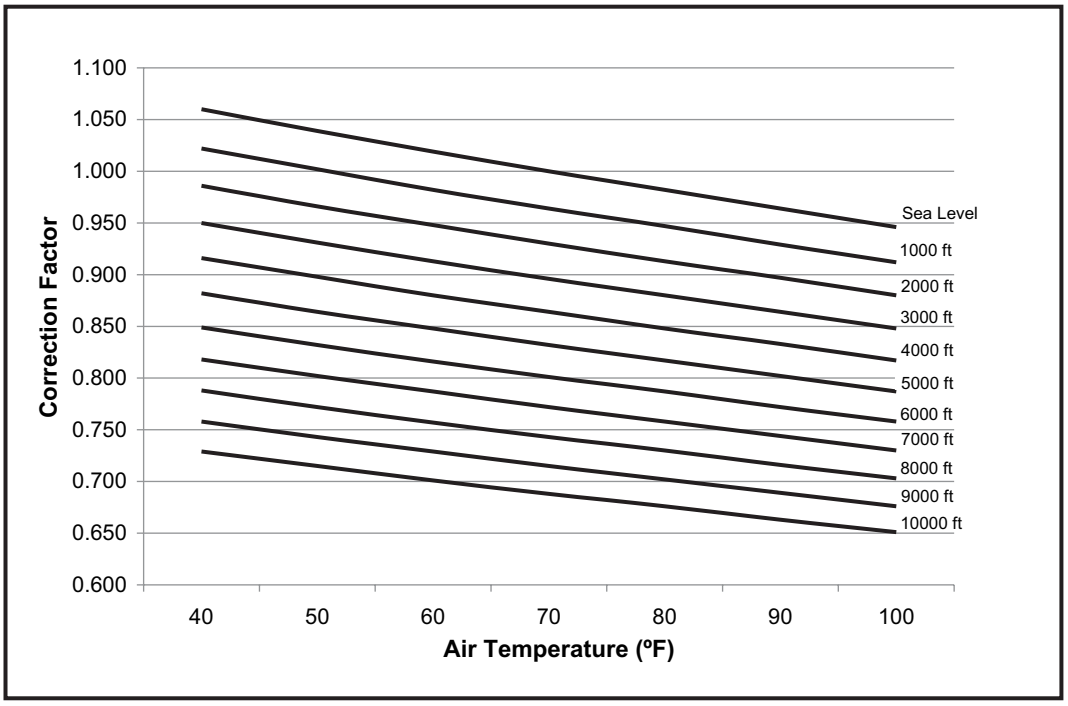


TABLE 13: ELECTRIC HEATER CFM LIMITATIONS

UNIT MODEL NOMINAL TONS	VOLTAGE	MINIMUM SUPPLY AIR CFM					
		HEATER SIZE NOMINAL KW					
		5	7	10	15	20	30
072 (6)	208/230-1-60	1500	1500	1500	1500	1500	1500
	208/230-3-60	1500	1500	1500	1500	1500	1500
	460-3-60	-	1500	1500	1500	1500	1500
	600-3-60	-	-	1500	1500	1500	1500

TABLE 14: ELECTRICAL DATA - DM072 DIRECT DRIVE W/O POWERED CONV. OUTLET

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
072 (6.0)	208-3-60	18.9	146.0	29.5	1.3	6.8	0.0	None	-	-	-	31.7	40
								E05	4.0	1	11.1	31.7	40
								E07	5.6	1	15.5	31.7	40
								E10	8.0	1	22.2	36.3	50
								E15	11.9	2	33.0	49.8	50
								E20	15.9	2	44.1	63.7	70
								E30	22.2	2	61.6	85.5	90
	230-3-60	18.9	146.0	29.5	1.3	6.8	0.0	None	-	-	-	31.7	40
								E05	5.3	1	13.3	31.7	40
								E07	7.5	1	18.8	31.7	40
								E10	10.6	1	26.6	40.4	50
								E15	15.9	2	39.9	56.3	60
								E20	21.2	2	53.2	72.2	80
								E30	29.6	2	74.3	97.5	100
	460-3-60	9.5	73.0	14.8	0.8	3.6	0.0	None	-	-	-	16.3	25
								E07	6.8	1	8.5	16.3	25
								E10	10.1	1	12.7	19.7	25
								E15	13.6	2	17.1	24.9	25
								E20	19.5	2	24.5	33.8	35
								E30	28.8	2	36.1	47.8	50
	575-3-60	7.6	58.4	11.8	0.8	3.6	0.0	None	-	-	-	13.0	15
								E10	10.6	1	10.6	16.3	20
								E15	15.9	1	16.0	22.7	25
								E20	21.2	2	21.3	29.1	30
								E30	30.4	2	30.5	40.2	40

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

TABLE 15: ELECTRICAL DATA - DM072 BELT DRIVE W/O POWERED CONV. OUTLET

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
072 (6.0)	208-3-60	18.9	146.0	29.5	1.3	5.0	0.0	None	-	-	-	29.9	40
								E05	4.0	1	11.1	29.9	40
								E07	5.6	1	15.5	29.9	40
								E10	8.0	1	22.2	34.0	45
								E15	11.9	2	33.0	47.5	50
								E20	15.9	2	44.1	61.4	70
								E30	22.2	2	61.6	83.3	90
	230-3-60	18.9	146.0	29.5	1.3	5.0	0.0	None	-	-	-	29.9	40
								E05	5.3	1	13.3	29.9	40
								E07	7.5	1	18.8	29.9	40
								E10	10.6	1	26.6	38.1	45
								E15	15.9	2	39.9	54.1	60
								E20	21.2	2	53.2	70.0	70
								E30	29.6	2	74.3	95.3	100
	460-3-60	9.5	73.0	14.8	0.8	2.5	0.0	None	-	-	-	15.2	20
								E07	6.8	1	8.5	15.2	20
								E10	10.1	1	12.7	18.3	20
								E15	13.6	2	17.1	23.6	25
								E20	19.5	2	24.5	32.4	35
								E30	28.8	2	36.1	46.4	50
	575-3-60	7.6	58.4	11.8	0.8	2.0	0.0	None	-	-	-	12.1	15
								E10	10.6	1	10.6	15.2	20
								E15	15.9	1	16.0	21.6	25
								E20	21.2	2	21.3	28.0	30
								E30	30.4	2	30.5	39.1	40

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

TABLE 16: ELECTRICAL DATA - DM072 BELT DRIVE HIGH STATIC W/O POWERED CONV. OUTLET

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
072 (6.0)	208-3-60	18.9	146.0	29.5	1.3	10.9	0.0	None	-	-	-	35.8	50
								E05	4.0	1	11.1	35.8	50
								E07	5.6	1	15.5	35.8	50
								E10	8.0	1	22.2	41.4	50
								E15	11.9	2	33.0	54.9	60
								E20	15.9	2	44.1	68.8	70
								E30	22.2	2	61.6	90.7	100
	230-3-60	18.9	146.0	29.5	1.3	10.9	0.0	None	-	-	-	35.8	50
								E05	5.3	1	13.3	35.8	50
								E07	7.5	1	18.8	36.2	50
								E10	10.6	1	26.6	45.5	50
								E15	15.9	2	39.9	61.4	70
								E20	21.2	2	53.2	77.4	80
								E30	29.6	2	74.3	102.6	110
	460-3-60	9.5	73.0	14.8	0.8	5.3	0.0	None	-	-	-	18.0	25
								E07	6.8	1	8.5	18.0	25
								E10	10.1	1	12.7	21.8	25
								E15	13.6	2	17.1	27.1	30
								E20	19.5	2	24.5	35.9	40
								E30	28.8	2	36.1	49.9	50
	575-3-60	7.6	58.4	11.8	0.8	4.1	0.0	None	-	-	-	14.2	20
								E10	10.6	1	10.6	17.9	20
								E15	15.9	1	16.0	24.2	25
								E20	21.2	2	21.3	30.6	35
								E30	30.4	2	30.5	41.7	45

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

TABLE 17: ELECTRICAL DATA - DM072 DIRECT DRIVE W/POWERED CONV. OUTLET

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
072 (6.0)	208-3-60	18.9	146.0	29.5	1.3	6.8	10.0	None	-	-	-	41.7	60
								E05	4.0	1	11.1	41.7	60
								E07	5.6	1	15.5	41.7	60
								E10	8.0	1	22.2	48.8	60
								E15	11.9	2	33.0	62.3	70
								E20	15.9	2	44.1	76.2	80
								E30	22.2	2	61.6	98.0	100
	230-3-60	18.9	146.0	29.5	1.3	6.8	10.0	None	-	-	-	41.7	60
								E05	5.3	1	13.3	41.7	60
								E07	7.5	1	18.8	43.6	60
								E10	10.6	1	26.6	52.9	60
								E15	15.9	2	39.9	68.8	70
								E20	21.2	2	53.2	84.7	90
								E30	29.6	2	74.3	110.0	125
	460-3-60	9.5	73.0	14.8	0.8	3.6	5.0	None	-	-	-	21.3	30
								E07	6.8	1	8.5	21.3	30
								E10	10.1	1	12.7	25.9	30
								E15	13.6	2	17.1	31.2	35
								E20	19.5	2	24.5	40.1	45
								E30	28.8	2	36.1	54.1	60
	575-3-60	7.6	58.4	11.8	0.8	3.6	4.0	None	-	-	-	17.0	20
								E10	10.6	1	10.6	21.3	25
								E15	15.9	1	16.0	27.7	30
								E20	21.2	2	21.3	34.1	35
								E30	30.4	2	30.5	45.2	45

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

TABLE 18: ELECTRICAL DATA - DM072 BELT DRIVE W/POWERED CONV. OUTLET

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
072 (6.0)	208-3-60	18.9	146.0	29.5	1.3	5.0	10.0	None	-	-	-	39.9	50
								E05	4.0	1	11.1	39.9	50
								E07	5.6	1	15.5	39.9	50
								E10	8.0	1	22.2	46.5	50
								E15	11.9	2	33.0	60.0	70
								E20	15.9	2	44.1	73.9	80
								E30	22.2	2	61.6	95.8	100
	230-3-60	18.9	146.0	29.5	1.3	5.0	10.0	None	-	-	-	39.9	50
								E05	5.3	1	13.3	39.9	50
								E07	7.5	1	18.8	41.3	50
								E10	10.6	1	26.6	50.6	60
								E15	15.9	2	39.9	66.6	70
								E20	21.2	2	53.2	82.5	90
								E30	29.6	2	74.3	107.8	110
	460-3-60	9.5	73.0	14.8	0.8	2.5	5.0	None	-	-	-	20.2	25
								E07	6.8	1	8.5	20.2	25
								E10	10.1	1	12.7	24.6	25
								E15	13.6	2	17.1	29.8	30
								E20	19.5	2	24.5	38.7	40
								E30	28.8	2	36.1	52.7	60
	575-3-60	7.6	58.4	11.8	0.8	2.0	4.0	None	-	-	-	16.1	20
								E10	10.6	1	10.6	20.2	25
								E15	15.9	1	16.0	26.6	30
								E20	21.2	2	21.3	33.0	35
								E30	30.4	2	30.5	44.1	45

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

TABLE 19: ELECTRICAL DATA - DM072 BELT DRIVE HIGH STATIC W/POWERED CONV. OUTLET

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA[1] (Amps)	Max Fuse[2]/ Breaker[3] Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
072 (6.0)	208-3-60	18.9	146.0	29.5	1.3	10.9	10.0	None	-	-	-	45.8	60
								E05	4.0	1	11.1	45.8	60
								E07	5.6	1	15.5	45.8	60
								E10	8.0	1	22.2	53.9	60
								E15	11.9	2	33.0	67.4	70
								E20	15.9	2	44.1	81.3	90
								E30	22.2	2	61.6	103.2	110
	230-3-60	18.9	146.0	29.5	1.3	10.9	10.0	None	-	-	-	45.8	60
								E05	5.3	1	13.3	45.8	60
								E07	7.5	1	18.8	48.7	60
								E10	10.6	1	26.6	58.0	60
								E15	15.9	2	39.9	73.9	80
								E20	21.2	2	53.2	89.9	90
								E30	29.6	2	74.3	115.1	125
	460-3-60	9.5	73.0	14.8	0.8	5.3	5.0	None	-	-	-	23.0	30
								E07	6.8	1	8.5	23.1	30
								E10	10.1	1	12.7	28.1	30
								E15	13.6	2	17.1	33.3	35
								E20	19.5	2	24.5	42.2	45
								E30	28.8	2	36.1	56.2	60
	575-3-60	7.6	58.4	11.8	0.8	4.1	4.0	None	-	-	-	18.2	25
								E10	10.6	1	10.6	22.9	25
								E15	15.9	1	16.0	29.2	30
								E20	21.2	2	21.3	35.6	40
								E30	30.4	2	30.5	46.7	50

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

TABLE 20: PHYSICAL DATA

MODELS		DM
		072
EVAPORATOR BLOWER	Centrifugal Blower (Belt Drive) (Dia. x Wd. in.)	12 X 10
	Centrifugal Blower (Direct Drive) (Dia. x Wd. in.)	12 X 11
	Fan Motor HP (Direct Drive)	1
	Fan Motor HP (Belt Drive)	1 1/2
	Fan Motor HP (Belt Drive High Static)	3
EVAPORATOR COIL	Rows Deep	4
	Fins Per Inch	13
	Face Area (Sq. Ft.)	5.1
CONDENSER FANS	Propeller Dia. (in.)	24
	Fan Motor Hp	1/4
	Nom. CFM	3400
CONDENSER COILS	Rows Deep	2
	Fins Per Inch	16
	Face Area (Sq. Ft.)	16.7
COMPRESSOR (Qty. Per Unit)	Quantity / Type	1 / Scroll
AIR FILTERS	Quantity Per Unit (15" X 20" X 1" or 2")	2
	Quantity Per Unit (14" X 25" X 1" or 2")	1
	Total Face Area (sq. ft.)	6.3
CHARGE	Refrigerant 22 (lbs./oz.)	10/0

TABLE 21: ELECTRIC HEAT CORRECTION FACTORS

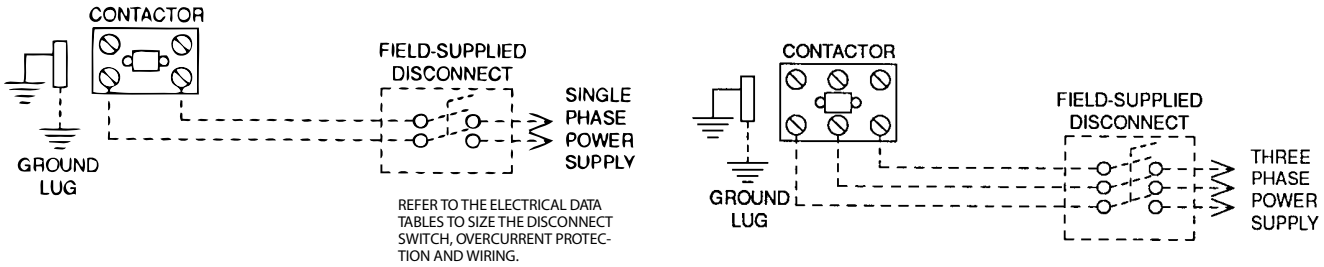
NOMINAL VOLTAGE	VOLTAGE	kW CAP. MULTIPLIER
208	208	0.75
240	230	0.92
480	460	0.92
600	575	0.92

TABLE 22: VOLTAGE LIMITATIONS[1]

POWER SUPPLY	VOLTAGE	
	MIN.	MAX.
208/230-3-60	187	253
460-3-60	414	506
575-3-60	540	630

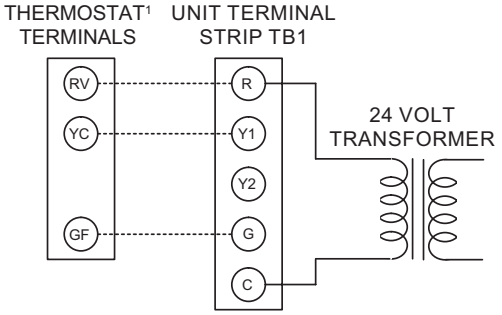
1. Utilization Range "A" in accordance with ARI Standard 110.

TYPICAL POWER WIRING



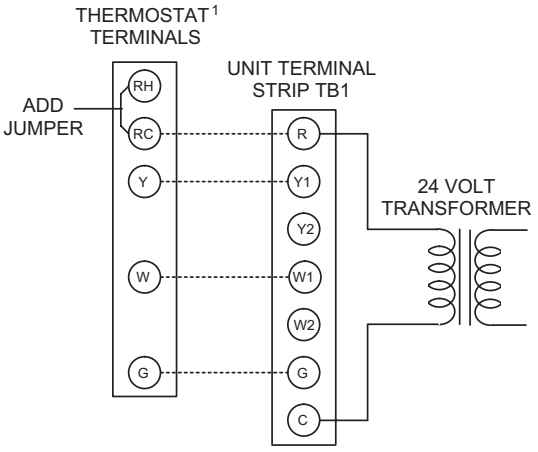
TYPICAL CONTROL WIRING

COOLING ONLY (24 VOLT THERMOSTAT)



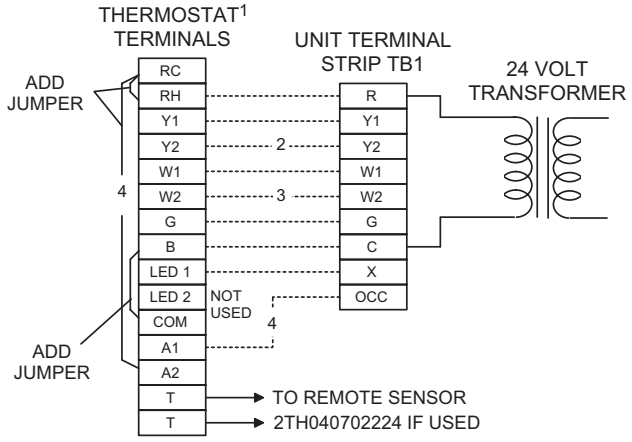
[1]24 VOLT THERMOSTAT 2TH07701024. TO CONTROL THE ECONOMIZER ON SECOND STAGE COOLING, USE THE THERMOSTAT 2TH0401224.

COOLING / HEATING (24 VOLT THERMOSTAT)



[1]24 VOLT THERMOSTAT 2ET07701024. TO CONTROL THE ECONOMIZER ON THE SECOND STAGE COOLING OR TO HAVE AN ELECTRIC HEAT ACCESSORY WITH TWO STAGES OF HEAT, USE THERMOSTAT 2TH0471024.

COOLING / HEATING (ELECTRONIC THERMOSTAT) MULTI STAGE



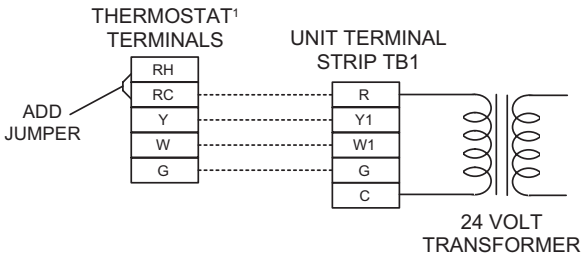
[1] ELECTRONIC PROGRAMMABLE THERMOSTAT 2ET04700224 (INCLUDES SUBBASE).

[2] SECOND STAGE COOLING IS NOT REQUIRED ON UNITS LESS ECONOMIZER.

[3] SECOND STAGE HEATING IS ONLY REQUIRED ON UNITS WITH A TWO STAGE ELECTRIC HEATER OR 2 STAGE GAS HEAT.

[4] REMOVE JUMPER J2 FROM TERMINALS 4 AND 9 ON JUMPER PLUG CONNECTOR P6 ON UNITS WITH ECONOMIZER. TERMINALS A1 AND A2 PROVIDE A RELAY OUT-PUT TO CLOSE THE OUTDOOR ECONOMIZER DAMPERS WHEN THE THERMOSTAT SWITCHES TO THE SET-BACK POSITION.

COOLING / HEATING (ELECTRONIC THERMOSTAT) SINGLE STAGE



[1]ELECTRONIC PROGRAMMABLE THERMOSTAT 2ET07701024 (INCLUDES SUBBASE). TO CONTROL THE ECONOMIZER ON SECOND STAGE COOLING, USE THERMOSTAT 2TH04700224.

FIGURE 3 - TYPICAL FIELD POWER & CONTROL WIRING

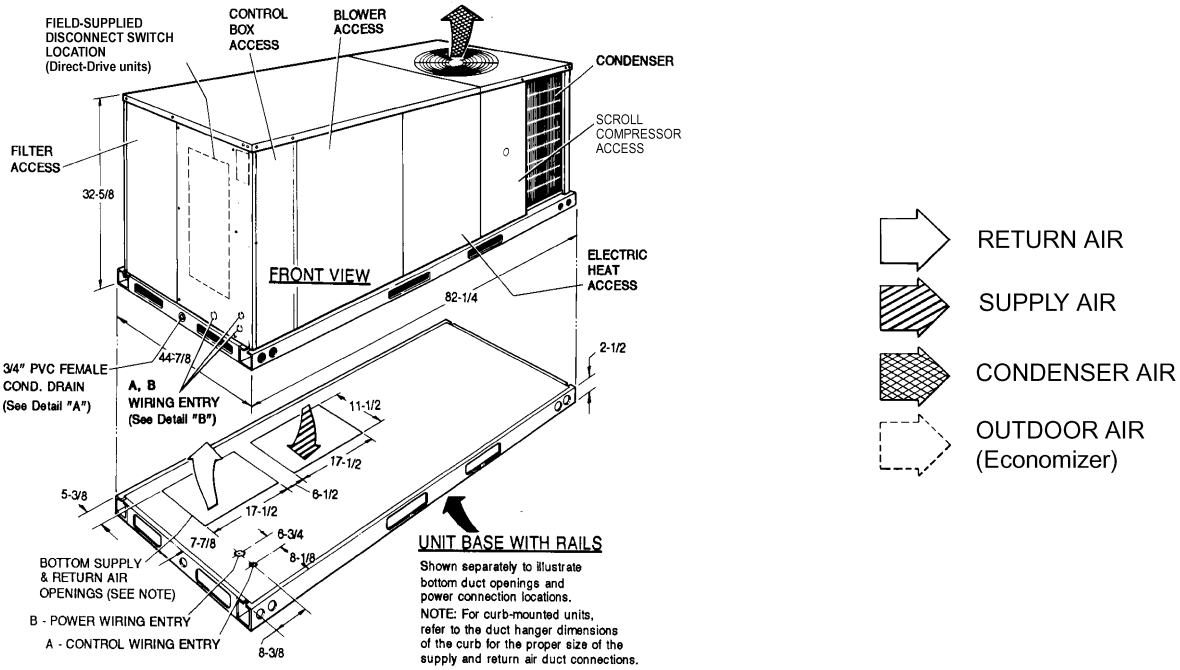


FIGURE 4 - UNIT DIMENSIONS (6 TON COOLING ONLY/ELECTRIC HEAT) FRONT VIEW

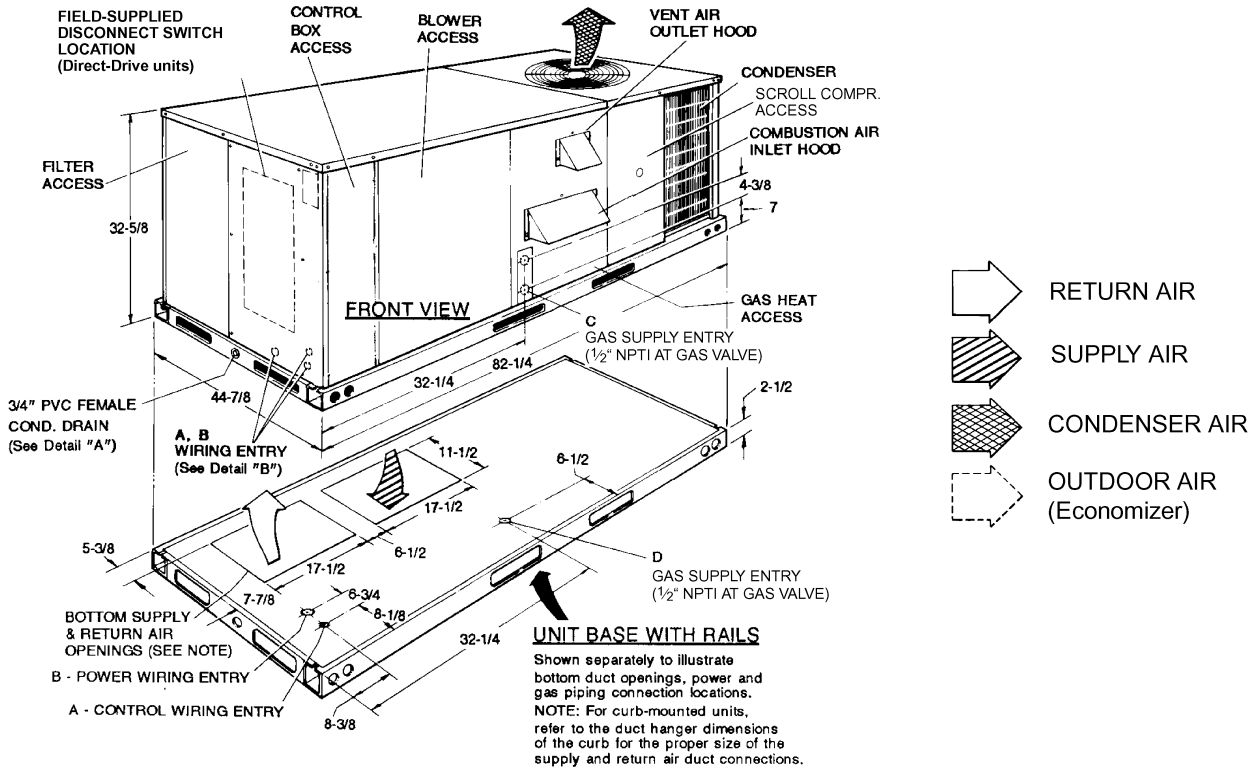


FIGURE 5 - UNIT DIMENSIONS (6 TON COOLING/GAS HEAT) FRONT VIEW

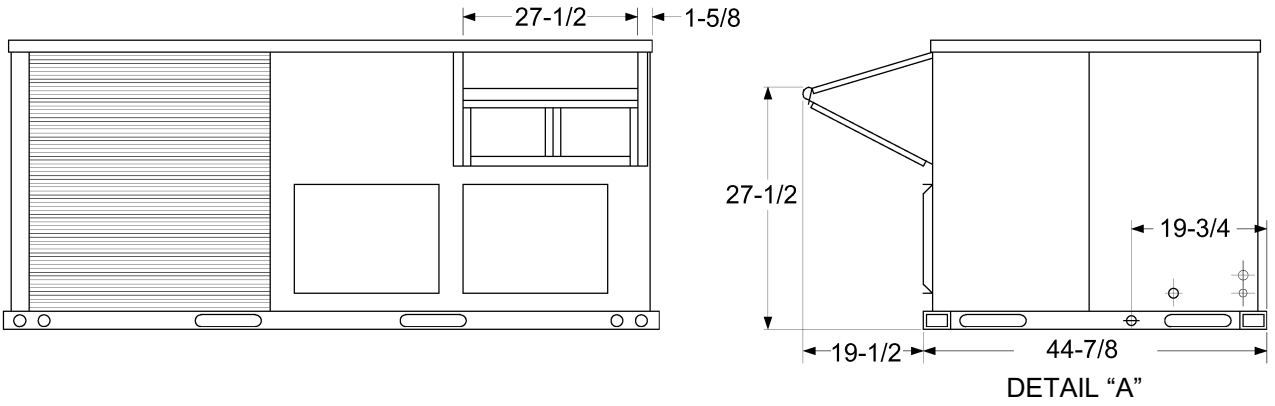
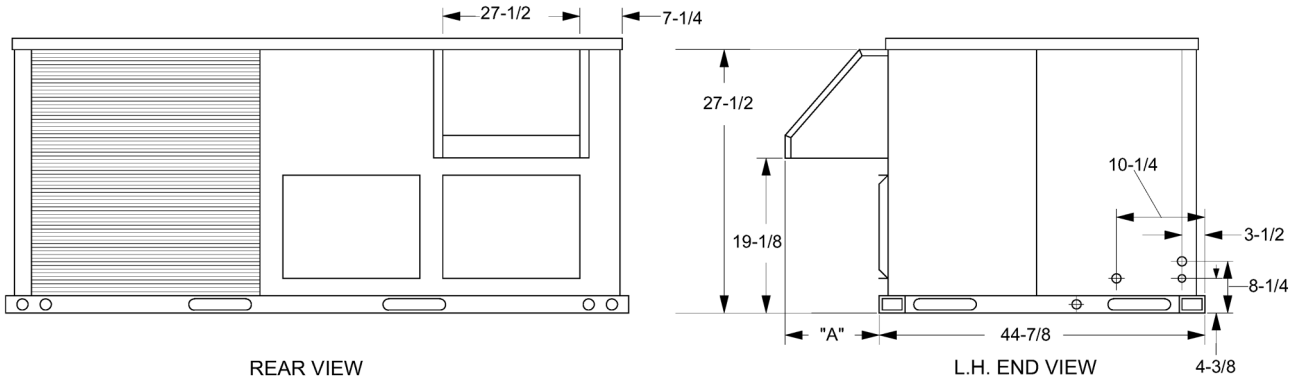


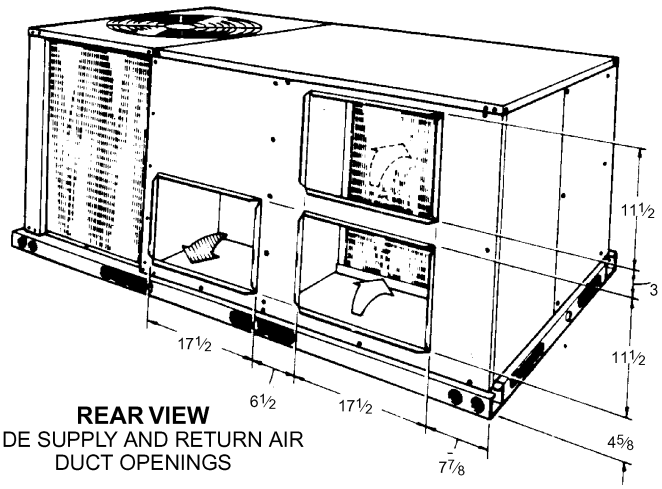
FIGURE 6 - UNIT WITH ECONOMIZER RAINHOOD



DIMENSION "A"	
FIXED OUTDOOR AIR DAMPER	12
MOTORIZED DAMPER	16-1/2

DETAIL “B”

FIGURE 7 - UNIT WITH FIXED OUTDOOR AIR/MOTORIZED DAMPER RAINHOOD

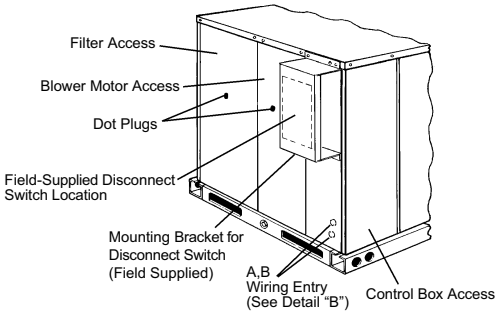


REAR VIEW
SIDE SUPPLY AND RETURN AIR DUCT OPENINGS

DUCT COVERS - Units are shipped with all air duct openings covered.
For side duct applications;
1. Remove and discard the supply and return air duct covers.
2. Connect ductwork to duct flanges on the rear of the unit.

For bottom duct applications;
1. Remove the side supply air duct cover to gain access to the bottom supply air knockout panel.
2. Remove and discard the bottom knockout panel.
3. Replace the side duct cover.
4. With filter section access panel removed from the unit, remove and discard the bottom return air knockout panel.
5. Replace the filter access panel.

FIGURE 8 - UNIT DIMENSIONS (REAR VIEW)



Disconnect Switch Location and Motor Access Panel for Unit with "Belt-Drive" Option

FIGURE 9 - DISCONNECT/BLOWER ACCESS LOCATION

TABLE 23: UTILITIES ENTRY

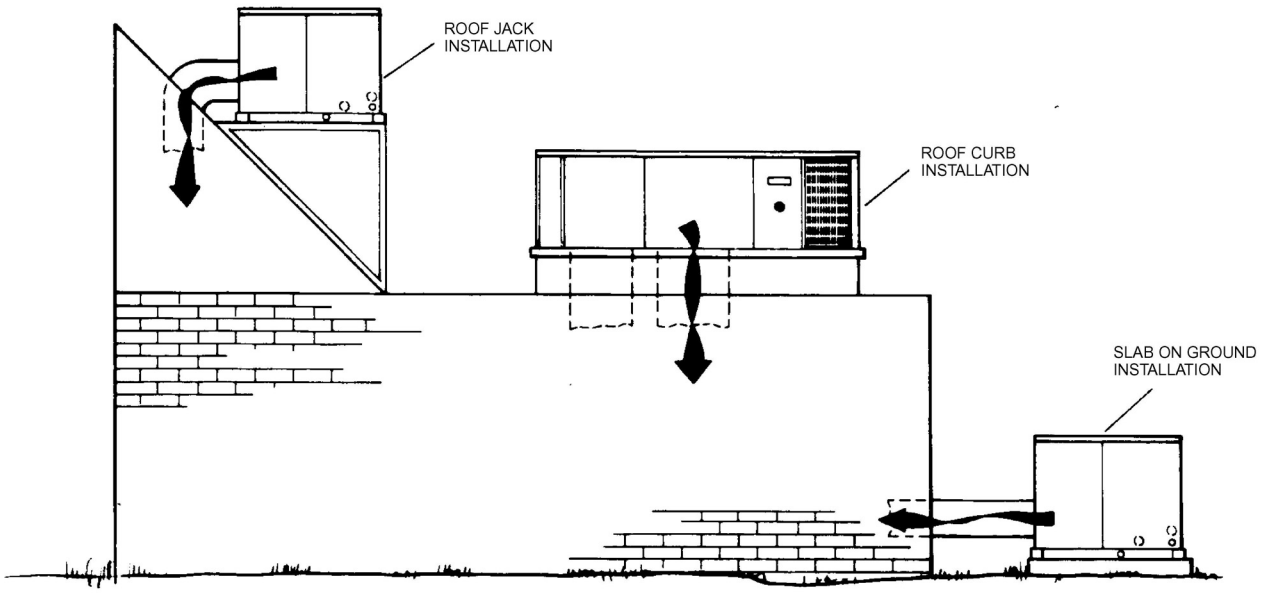
HOLE	OPENING SIZE (DIA.)	USED FOR	
A	7/8" KO[1]	Control Wiring[2]	Side
			Bottom
B	2" KO[1]	Power Wiring	Side
			Bottom
C	1-5/8" KO	Gas Piping (Front)	
D	1-1/2" KO	Gas Piping (Bottom)	

1. Opening in the bottom to the unit can be located by the side in the insulation.
2. Do not remove the 2" knockout ring.

TABLE 24: MINIMUM CLEARANCES

LOCATION	CLEARANCE
Front	24" (Cooling/Electric Heat) 32" (Gas Heat)
Rear	12" (Less Economizer) 36" (With Economizer or Fixed Air/Motorized Damper)
Left Side (Filter Access)	24" (Less Economizer) 36" (With Economizer)
Right Side (Cond. Coil)	24"
Below Unit[1]	0"
Above Unit[2]	72" (For Condenser Air Discharge)

1. Units may be installed on combustible floors made from wood or class A, B, or C roof covering material.
2. Units must be installed outdoors. Overhanging structures or shrubs should not obstruct condenser air discharge outlet.



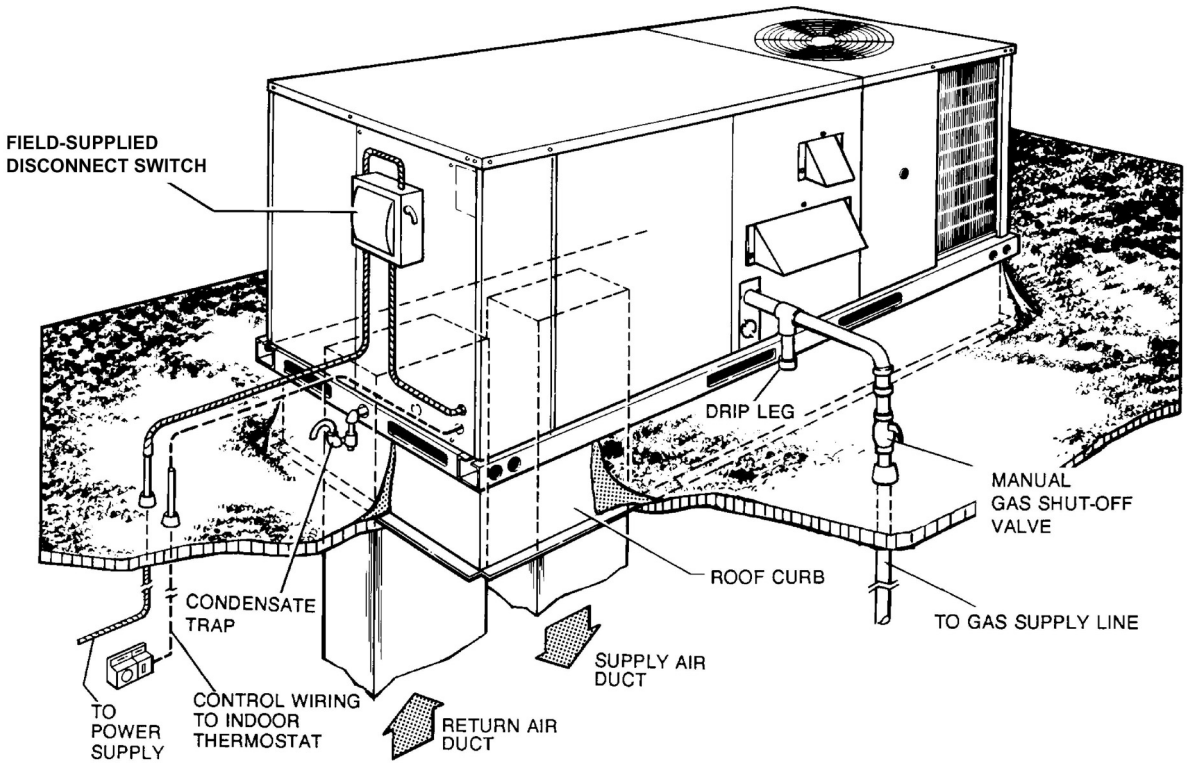


FIGURE 10 - TYPICAL APPLICATIONS

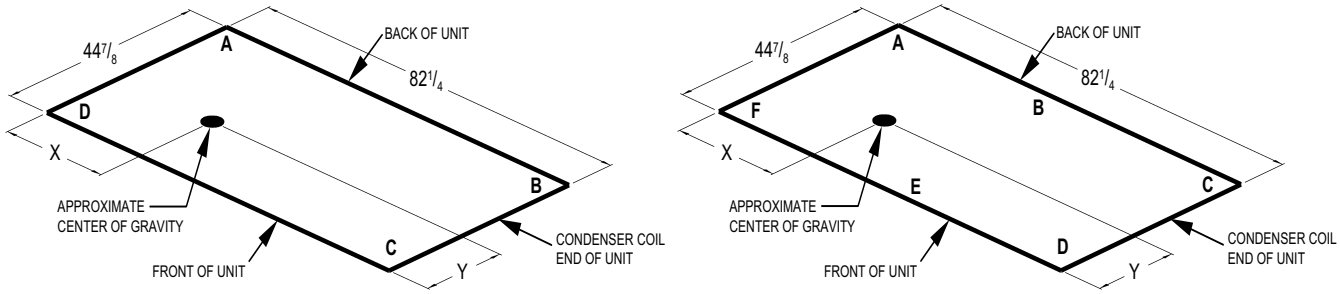


FIGURE 11 - FOUR AND SIX POINT LOADING

TABLE 25: DM 4 AND 6 POINT LOADS WEIGHT DISTRIBUTION

UNIT	TOTAL	4-Point Loading (lb)				6-Point Loading (lb)					
		A	B	C	D	A	B	C	D	E	F
DM072 Cooling/ Electric	**720**	160	157	200	203	107	106	104	133	134	136
DM072D06	**770**	171	168	214	218	114	113	112	142	144	145
DM072N08	**780**	173	170	216	220	116	114	113	144	146	147
DM072(D,N)10	**790**	175	172	219	223	117	116	114	146	147	149

TABLE 26: CENTER OF GRAVITY

DIMENSION	6 TON
X	44”
Y	22”

TABLE 27: OPERATING WEIGHTS (LBS.)

MODEL SIZE			6 TON
BASIC UNIT	DM (Cooling Only)		720
	DM (Gas/Electric)	N08	780
		N10	790
		D06	770
		D10	790
OPTIONS	Economizer		50
	Motorized Damper		26
	Electric Heater	5 - 7 kW	18
		10 - 15 kW	23
		20 - 30 kW	28
ACCY.	Roof Curb		92
	Barometric Relief / Fixed Air Damper		10
	Belt-Drive Blower		5

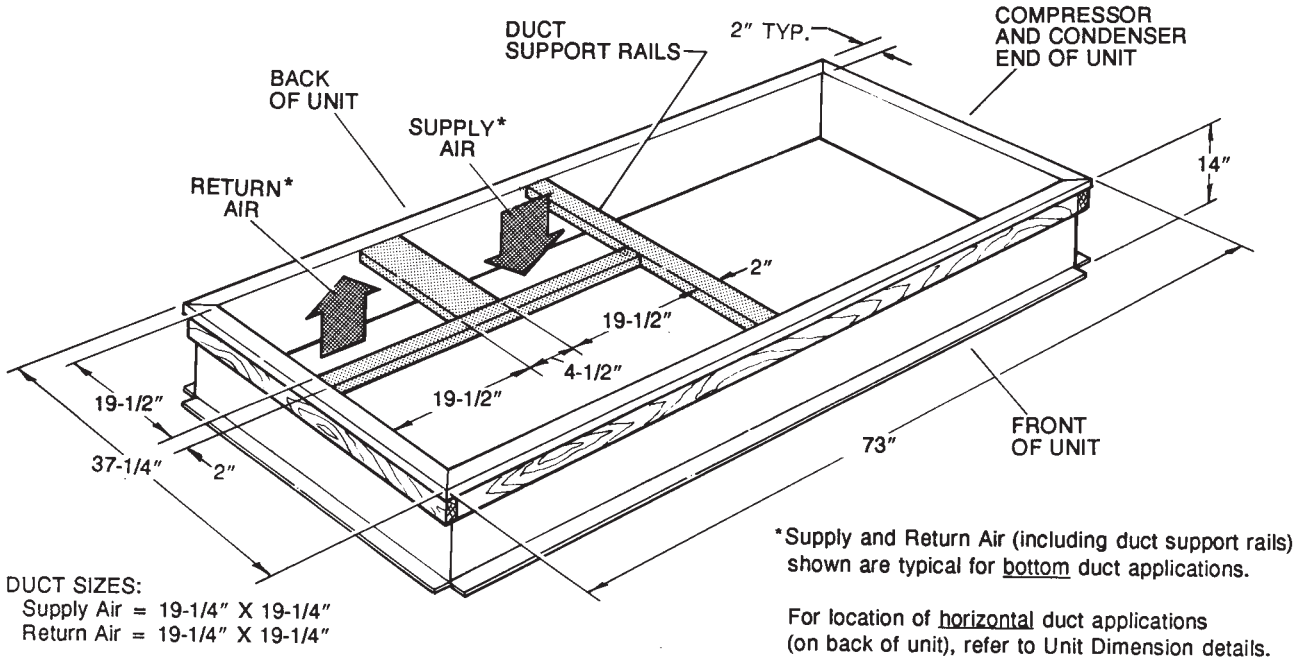


FIGURE 12 - ROOF CURB DIMENSIONS

GUIDE SPECIFICATIONS

GENERAL

Units shall be manufactured by Johnson Controls Unitary Products in an ISO 9001 certified facility.

York's Sunline 2000^{TM} units are convertible single package-units. Although the units are primarily designed for curb mounting on a roof, they can also be slab-mounted at ground level or set on steel beams above a finished roof. Cooling only, cooling with gas heat and cooling with electric heat models are available with a wide variety of factory-mounted options and field-installed accessories to make them suitable for almost every application. All units are self-contained and assembled on full perimeter base rails with holes in the four corners for overhead rigging. Every unit is completely piped, wired, charged and tested at the factory to simplify the field installation and to provide years of dependable operation. All models (including those with an economizer) are suitable for either bottom or horizontal duct connections. Models with power exhaust are suitable for bottom duct connections only. For bottom duct, remove the sheet metal panels from the supply and return air openings through the base of the unit. For horizontal duct, remove the supply and return air panels on the rear of the unit.

All non-Scroll compressors include crankcase heaters and all compressors have internal pressure relief. Every refrigerant circuit includes a liquid line filter-drier, a discharge line high pressure switch and a suction line with a freezestat and low pressure/loss of charge switch.The unit control circuit includes a 75 VA transformer, a 24-volt circuit breaker and a relay board with a compressor lockout circuit, a terminal strip for thermostat wiring, plus an additional set of pin connectors to simplify the interface of additional field controls. All units have long lasting powder paint cabinets with 1000 hour salt spray test approval under ASTMB117 procedures. All models are CSA listed. All models include a 1-year limited warranty on the complete unit. Compressors and electric heater elements carry a 5-year warranty. Aluminized steel and Stainless steel tubular heat exchangers carry a 10-year warranty.

DESCRIPTION

Units shall be factory-assembled, single packaged, Electric Cooling/Gas Heat, Electric Cooling/Optional Electric Heat and designed for outdoor mounted installation.

The 6 ton unit shall have minimum EER ratings of 9.0. They shall have built-in field convertible duct connections for down discharge supply/return or horizontal discharge supply/return, and be available with factory installed options or field installed accessories. The units shall be factory wired, piped, charged with R-22 refrigerant and factory tested prior to shipment. All unit wiring shall be both numbered and color coded. All units the cooling performance shall be rated in accordance with DOE and ARI test procedures. Units shall be CSA listed, classified to ANSI Z21.47, UL 1995/CSA No. 236 standards.

b. Evaporator and Condenser coils shall be of the direct expansion, draw-thru, design.

UNIT CABINET

Unit cabinet shall be constructed of galvanized steel, with exterior surfaces coated with a non-chalking, powdered paint finish, certified at 1000 hours salt spray test per ASTMB117 standards. Indoor blower section shall be insulated with a minimum 1/2” thick insulation, coated on the airside. Aluminum foil faced insulation shall be used in the furnace compartment and be fastened with ridged fasteners to prevent insulation from entering the air stream. Cabinet panels shall be “large” size, easily removable for servicing and maintenance. Full perimeter base rails shall be provided to assure reliable transit of equipment, overhead rigging and proper sealing on roof curb applications. Disposable 1" filters shall be furnished and be accessible through a removable access door, sealed airtight. Units filter track shall be designed to accommodate either 1” or 2” filters. Fan performance measuring ports shall be provided on the outside of the cabinet to allow accurate air measurements of evaporator fan performance without removing panels or creating air by-pass of the coils. Condensate pan shall be internally sloped and conform to ASHRAE 62-89 self-draining standards. Condensate connection shall be a minimum of 3/4” I.D. female and be a ridged mount connection.

INDOOR (EVAPORATOR) FAN ASSEMBLY

The indoor fan shall be direct drive, multi-speed, or a factory installed belt drive assembly that includes an adjustable pitch motor pulley. Job site selected brake horsepower (B.H.P.) shall not exceed the motors nameplate horsepower rating, plus the service factor. Units shall be designed not to operate above service factor. Fan wheel shall be double-inlet type with forward-curved blades, dynamically balanced to operate smoothly throughout the entire range of operation. Airflow design shall be constant air volume. Bearings shall be sealed and permanently lubricated for longer life and no maintenance.

OUTDOOR (CONDENSER) FAN ASSEMBLY

The outdoor fan shall be of the direct-driven propeller type, discharge air vertically, have aluminum blades riveted to a corrosion resistant steel spider bracket and shall be dynamically balanced for smooth operation. The outdoor fan motor shall be totally enclosed with permanently lubricated bearings, internally protected against overload conditions and staged independently.

REFRIGERANT COMPONENTS

Compressor:

a. Shall be internally protected with internal high-pressure relief and over temperature protection.

b. Shall have internal spring isolation and sound muffling to minimize vibration and noise, and be externally isolated on a dedicated, independent mounting.

Coils:

a. Evaporator and condenser coils shall have aluminum plate fins mechanically bonded to seamless internally enhanced copper tubes with all joints brazed. Special Phenolic coating shall be available as a factory option.

Refrigerant Circuit and Refrigerant Safety Components shall include:

a. Independent fixed-orifice expansion devices.

b. Filter drier/strainer to eliminate any moisture or foreign matter.

c. Accessible service gage connections on both suction and liquid lines to charge, evacuate, and measure refrigerant pressure during any necessary servicing or troubleshooting without losing charge.

d. The refrigeration system shall provide at least 15°F of sub-cooling at design conditions.

UNIT CONTROLS

a. Unit shall be complete with self-contained low-voltage control circuit protected by a resetable circuit breaker on the 24-volt transformer side.

b. Unit shall incorporate a lockout circuit which provides reset capability at the space thermostat or base unit, should any of the following standard safety devices trip and shut off compressor.

c. Loss-of-charge/Low-pressure switch.

d. High-pressure switch.

e. Freeze-protection thermostat, evaporator coil.

f. If any of the above safety devices trip, a LED (light-emitting diode) indicator shall flash a diagnostic code that indicates which safety switch has tripped.

g. Unit shall incorporate “AUTO RESET” compressor over temperature, over current protection.

h. Unit shall operate with conventional thermostat designs and have a low voltage terminal strip for easy hook-up.

i. Unit control board shall have on-board diagnostics and fault code display.

j. Standard controls shall include anti-short cycle and low voltage protection, and permit cooling operation down to 0°F.

k. Control board shall monitor each refrigerant safety switch independently.

l. Control board shall retain last 5 fault codes in non volatile memory, which will not be lost in the event of a power loss.

GAS HEATING SECTION (SINGLE OR 2 STAGE)

Shall be designed with induced draft combustion with post purge logic, energy saving direct spark ignition, and redundant main gas valve. Venter wheel shall be constructed of stainless steel for corrosion resistance. The heat exchanger shall be of the tubular type, constructed of T1-40 aluminized steel for corrosion resistance and allowing minimum mixed air entering temperature of 25°F. Burners shall be of the inshot type, constructed of aluminum coated steel and contain air mixture adjustments. All gas piping shall enter the unit cabinet at a single location through either the side or curb, without any field modifications. Integrated control boards shall provide timed control of evaporator fan functioning and burner ignition. Heating section shall be provided with the following minimum protection:

a. Primary and auxiliary high-temperature limit switches.

b. Induced draft motor speed sensor.

c. Flame roll out switch (manual reset).

d. Flame proving controls.

e. If any of the above safety devices trip, a LED (light-emitting diode) indicator shall flash a diagnostic code that indicates which safety switch has tripped.

NOTE: All 2 Stage Gas Heat, 60% Capacity 1^{ST} Stage, 40% Capacity 2^{ND} Stage.

ELECTRIC HEATING SECTION

An electric heating section, with nickel chromium elements, shall be provided in a range of 5 thru 30 KW, offering two stages of capacity - 16 KW and above on 208/230 volt heaters and 20 KW and above on 460 and 575 volt heaters. The heating section shall have a primary limit control(s) and automatic reset to prevent the heating element system from operating at an excessive temperature. The heating section assembly shall slide out of the unit for easy maintenance and service. Units with Electric Heating shall be wired for a single point power supply with branch circuit fusing (where required).

UNIT OPERATING CHARACTERISTICS

a. Unit shall be capable of starting and running at 125°F outdoor temperature, exceeding maximum load criteria of ARI Standard 210/240. The compressor, with standard controls, shall be capable of operation down to 0°F outdoor temperature. Unit shall be provided with fan time delay to prevent cold air delivery before heat exchanger warms up (Gas heat only).

ELECTRICAL REQUIREMENTS

All unit power wiring shall enter unit cabinet at a single factory provided location and be capable of side or bottom entry, to minimize roof penetrations and avoid unit field modifications. Separate side and bottom openings shall be provided for the control wiring.

STANDARD LIMITED WARRANTIES

- Compressor 5 Years
- Heat Exchanger 10 Years
- Electric Heat Element 5 Years
- Other Parts 1 Year

OPTIONAL OUTDOOR AIR (Shall be made available by either/or):

- **ELECTRONIC ENTHALPY AUTOMATIC ECONOMIZER**- Outdoor and return air dampers that are interlocked and positioned by a fully-modulating, spring return damper actuator. The maximum leakage rate for the outdoor air intake dampers shall not exceed 2% when dampers are fully closed and operating against a pressure differential of 0.5 IWG. A unit-mounted potentiometer shall be provided to adjust the outdoor and return air damper assembly to take in CFM of outdoor air to meet the minimum ventilation requirement of the conditioned space during normal operation. During economizer operation, a mixed-air temperature control shall modulate the outdoor and return air damper assembly to prevent the supply air temperature from dropping below 55°F. Changeover from compressor to economizer operation shall be provided by an integral electronic enthalpy control that feeds input into the basic module. The outdoor intake opening shall be covered with a rain hood that matches the exterior of the unit. Water eliminator/filters shall be provided. Simultaneous economizer/compressor operation is also possible. Dampers shall fully close on power loss.
- **MOTORIZED OUTDOOR AIR DAMPERS** - Outdoor air dampers are positioned by a 2-position, spring-return damper actuator. The maximum leakage rate for the outdoor air intake dampers shall not exceed 2% when dampers are fully closed and operating against a pressure differential of 0.5 IWG. A unit-mounted potentiometer shall be provided to adjust the outdoor damper assembly to take in the design CFM of outdoor air to meet the ventilation requirements of the conditioned space during normal operation. Whenever the indoor fan motor is energized, the dampers open up to one of two pre-selected positions - regardless of the outdoor air enthalpy. Dampers return to the fully closed position when the indoor fan motor is de-energized. Dampers shall fully close on power loss.

OTHER PRE-ENGINEERED ACCESSORIES AVAILABLE

- **ROOF CURB** - 14"and 8” high, full perimeter curb with wood nailer (shipped knocked-down).
- **BAROMETRIC RELIEF DAMPER** - Contains a rain hood, air inlet screen, exhaust damper and mounting hardware. Used to relieve internal air pressure through the unit.
- **PROPANE CONVERSION KIT** - Contains new orifices and gas valve parts to convert from natural to L.P. gas. One per unit required.
- **HIGH ALTITUDE - NATURAL GAS** - Contains orifices required for applications between 2000 and 6000 feet altitude.
- **HIGH ALTITUDE - PROPANE GAS** - Contains orifices required for applications between 2000 and 6000 feet altitude. Must be used with propane conversion kit.
- **LOW NOX** - Required to reduce the emission of nitrogen oxides below 40 nanograms per joule.
- **GAS PIPING** - Contains 1/2” pipe nipples, fittings and gas cock (including panel assess gaskets) required for bottom gas supply connection with external shut off.
- **POWER EXHAUST OPTION** - To work in conjunction with economizers.
- **ELECTRIC HEATERS**
- **ECONOMIZER/MOTORIZED DAMPER RAIN HOOD** - Contains all hood panels and the hardware for assembling.
- **MANUAL OUTDOOR AIR DAMPER**
- **COIL GUARD KIT** - Guard for cooling coil.
- **HAIL GUARD**
- **FLUE EXHAUST EXTENSION**

OTHER FACTORY INSTALLED OPTIONS

- **POWER EXHAUST OPTION** - To work in conjunction with economizers.
- **STAINLESS STEEL HEAT EXCHANGER**
- **STAINLESS STEEL DRAIN PAN**
- **BOTTOM DRAIN CONNECTION**
- **TECHNICOAT PHENOLIC COATED CONDENSER AND EVAPORATOR COIL**
- **ELECTRONIC SINGLE ENTHALPY ECONOMIZER**
- **DIRTY FILTER SWITCH**
- **PHASE MONITOR**
- **COIL GUARD**
- **POWERED GFI CONVENIENCE OUTLET**
- **NON-POWERED GFI CONVENIENCE OUTLET**
- **BAS CONTROLS (Simplicity® INTELLI-Comfort™, CPC, JOHNSON, HONEYWELL, NOVAR, YORK COMMERCIAL COMFORT SYSTEM (YCCS))**
- **BAS READY ECONOMIZER (2 - 10 V. D. C. ACTUATOR WITHOUT A CONTROLLER)**
- **HINGED FILTER DOOR ACCESS AND TOOLESS ACCESS PANELS**
- **2" PLEATED FILTERS**
- **DISCONNECT SWITCH**
- **SUPPLY AIR SMOKE DETECTOR**
- **RETURN AIR SMOKE DETECTOR**
- **HIGH STATIC DRIVE OPTION -** May include a belt, blower pulley, motor pulley or a motor change to enhance blower performance.

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